Abstract Submitted
for the APR18 Meeting of
The American Physical Society

Quarkonium Production in Jets THOMAS MEHEN, Duke Univ — This talk will describe new tests of quarkonium production using quarkonia that are produced within jets. We study the distribution in the fraction z of a jet's longitudinal momentum carried by the quarkonium. The z distribution is sensitive to the underlying NRQCD production mechanism. Analytic calculations of the z distributions in SCET that incorporate Next-to-Leading-Log (NLL) resummation disagree with default PYTHIA predictions. We describe a modified simulation method which agrees well with NLL analytic calculations. This method is then successfully applied to recent LHCb measurements of J/ψ within jets. We discuss the implications of this measurement for extractions of NRQCD long-distance matrix elements. Finally, we discuss other observables involving quarkonium within jets which may be useful for discriminating between NRQCD production mechanisms.

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Date submitted: 12 Jan 2018 Electronic form version 1.4